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- (8) A road leading to the residential blocks newly constructed (1949) for the workers of SK2.
  - (9) Shows the rail connection to the Pridacha station and the rail connections for the factory traffic of SK2/1, SK2/2, and the Vogres Power Plant.
  - (10) An aircraft factory where, in 1949, two-engined craft were produced.
  - (11) Residential blocks of the workers who work in the aircraft factory.
  - (12) The direction to the Don River into which the Voronezh River flows.
3. SK2 is divided into two plants, SK2/1 and SK2/2. SK2/1 was built prior to World War II with the aid of American blueprints and served for the production of synthetic rubber, with alcohol as a base material. The Soviets used 96 percent wheat alcohol (Weizenspirit), some of which was imported from Hungary. In 1941 and 1942, this enterprise was partially dismantled and partially destroyed by the Soviets. During the war, the enterprise housed the Soviet military staff units which directed the fight for the reconquest of the main part of the city of Voronezh. The permanent bridge mentioned in the preceding paragraph was destroyed in 1942; this was the most advanced point of the German front in this region. Reconstruction of SK2/1 started in 1946, and production was resumed in the fall of 1947. In 1949, SK2/1 had a total crew of about 3,500 and a capacity of 80 tons of rubber per day. Appendix B shows a sketch of SK2/1; numbers in parentheses refer to numbers on the sketch. (See page 8.)
- (1) The main entrance into the plant from the direction of the Voronezh bridge and the Vogres Power Plant.
  - (2) The main guard house with lodgings for the guard crew which carried out the checking of passes and vehicles.
  - (3) The oxygen plant belonging to the enterprise. This plant was about 30 meters long, 18 meters wide, and 9 to 10 meters high. It was built upon a number of foundations of reinforced concrete about 2 meters deep and with square cross sections of about 60 by 60 cm. Each foundation supported a pillar also made of reinforced concrete, with square cross sections of about 30 by 30 cm. The walls between the pillars were occupied by large glass windows in concrete frames supported by brick foundations. The roof was of light construction, wood and tarpaper, so that in case of an explosion the main pressure would be directed skywards. The main equipment of the oxygen plant consisted of 12 compressors and 12 high vacuum containers.
  - (4) A compressor station for the production of Rassel (sic), a deep-cooled alcohol liquid, about 38 percent pure, which was circulated in copper pipes through the entire plant in order to provide constant temperature for all measurement devices and indicators. This building was about 25 meters long, 18 meters wide, and 9 to 10 meters high. Its foundations, pillars, walls, and roof were constructed in the same way as those of the oxygen plant. It was equipped with eight compressors with a low-temperature performance of about minus 30° Centigrade.
  - (5) Tsekh No. 4, where the base material was rectified; the product of this process was called rectificate. This tsekh (shop) was under the direction of Kotov (fnu), who had supervised the dismantling of the Buna enterprise in Schkopau. This building was of great importance for the entire plant, inasmuch as in the northern part of its west wall it had the inlets for the steam, the water, and the power for the entire SK2 plant. The steam entered through two pipes of 35 cm. diameter each; the water through two pipes of 40 cm. diameter each; and the power through eight 10 kv cables. The west part of the southern wall of this building had the inlet for the contact gas coming from Tsekh No. 3 through two pipes of 60 cm. diameter and 8 mm. thickness. Tsekh No. 4

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was 60 meters long, 40 meters wide, and 24 meters high. Its northwest corner was cut away. This corner was taken up by a metal tower slightly higher than the building (5a). The building of Tsekh No. 4 as well as the metal tower was supported by foundations of reinforced concrete about 4 meters deep, with cross sections of 150 by 200 cm. These foundations supported pillars also of reinforced concrete, with cross sections of about 60 by 70 cm. The space between the pillars again was mostly taken up by windows. The roof consisted of a steel construction which supported pressed plates made of cement mixed with excelsior. These plates were corrugated. A layer of sand, about 8 cm. high, was placed upon the plates. This layer was followed by another layer of bitumen about 4 cm high and finally by another layer of sand 2 cm high, which was placed upon the bitumen layer. The building had four stories. The inner ceilings separating the stories were made from reinforced concrete with a load capacity of 2,500 kg. per square meter. The principal equipment of the building consisted of six rectification columns, six condensers, twelve pumps, and four compressors.

- (6) Tsekh No. 5, where the rectificate was processed into polymerization liquid. This building was connected with Tsekh No. 4 by pipe conduits. The foundations, pillars, walls, inner ceilings, and roof were constructed in the same way as those of Tsekh No. 4. The building was about 75 meters long, 50 meters wide, and 40 meters high. It had seven stories.
- (7) Tsekh No. 9, which was under the supervision of Mesverskiy (fnu). This building was directly adjacent to Tsekh No. 5. It served the purpose of producing Devinil (sic), prepared from polymerization by-products. The building was 30 meters long, 18 meters wide, and 12 meters high. It was constructed in about the same way as Tsekh No. 5, with the exception that it had a roof of light construction, as in the oxygen plant. The reason was that Devinil-oxygen mixture was highly explosive. Directly in front of this building were four Devinil cisterns, each with about 150 cubic meters capacity.
- (8) Tsekh No. 3, a building about 70 meters long, 50 meters wide, and 18 meters high. Its construction, including the roof, was much the same as that of Tsekh No. 4 and No. 5. This building served the purpose of vaporizing the alcohol mixture with catalyst additions. The catalyst substance came from Tsekh No. 1 (see below). The alcohol-catalyst mixture flowed from Tsekh No. 3 to Tsekh No. 4. The principal equipment of the building consisted of 12 contact ovens with 24 retorts each. The ovens were heated with naptha which was injected and burned with air under pressure.
- (9) Tsekh No. 1, where the catalyst was produced. It had the same construction as Tsekh No. 4, including the walls and roof. It was about 70 meters long, 24 meters wide, and 12 meters high.
- (10) Represents a wooden fence about 2.5 meters high, which was topped by three lines of barbed wire. This fence surrounded the entire SK2/1 Plant. There were watchtowers spaced at intervals of 100 meters, provided with large projections. Outside the fence were a number of long wire ropes to which watchdogs were attached by sliding leashes. These dogs were out all night.
- (11) A building constructed in the same way as the oxygen plant, with a light roof. It was about 30 meters long, 18 meters wide, and 9 to 10 meters high. It was the compressor department. Its equipment consisted of a number of compressors with moisture separators, which were mounted on heavy foundations of reinforced concrete.
- (12) The administration building, a brick structure. It was about 25 meters long, 18 meters wide, and 20 meters high with about four stories. This building contained the offices of the production administration under the supervision of Director Matveyev (fnu). The other administrative services such as personnel, wages office, bookkeeping, etc., were outside the plant compound and could be visited only during non-working hours.

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- (13) The transformer station, a brick structure about 22 meters long, 12 meters wide, and 8 meters high. It had eight transformers of 6,000 kv and 10 kv. It transforms the power furnished by the Vogres power plant to 380v and 500v.
  - (14) The mechanical work shop, a brick building but with a heavy roof, like that of Tsekh No. 4; about 50 meters long, 20 meters wide, and 10 meters high.
  - (15) Tsekh No. 6, a one-story building about 70 meters long, 50 meters wide, and 18 meters high. Its foundations, pillars, walls, and roof were of the same construction as Tsekh No. 4. Inside the building, the roof was supported by a number of steel pillars made from double T-beams of about normal profile (NP)32. This building housed the polymerization process. Its equipment consisted of four rows of 12 six-cubic-meter polymerizers each. This building, furthermore, had a heavy crane with a 25-ton load capacity. There were originally two polymerization buildings. One of them, which is marked No. 15 on Appendix 2, exploded in early 1948 and had not been replaced as of late 1949.
  - (17) Material supply store, a brick structure, about 50 meters long, 30 meters wide, and 10 meters high, with a heavy roof, like the roof of Tsekh No. 4.
  - (18) Alcohol tanks, which were separate from the other buildings by an earth wall. They were placed deeper than ground level and had a special guard. The number of alcohol tanks in late 1949 was five. Three of these tanks had a diameter of about 28 meters and were 10 meters high; the other two tanks had a diameter of 20 meters and were 8 meters high. The tanks were made from sheet metal 15 mm. thick and were placed upon cement foundations.
  - (19) Pump station for the filling and emptying of the alcohol tanks.
  - (20) Rail track where the special tank cars arrived for the filling of the tanks.
  - (21) and (22) Storage dumps with concrete floors, used for the raw rubber. The rubber was loaded and shipped from this point. The rail switches for the tracks indicated were outside the fence.
  - (23) Exit from SK2/1 leading directly into the SK2/2 Plant.
  - (24) Point where the power cables, the industrial steam pipes, and the water pipes from the Vogres Power Plant entered the SK2/1 compound.
4. Construction of the SK2/2 Plant began in 1948. It was built on the basis of German blueprints and equipped with equipment dismantled in the Buna/Schkopau enterprise. The technological procedure of this plant was to follow the Buna process. It was to have a capacity of 120 tons of buna per day. The SK2/2 Plant started its first operation on 7 November 1949, although some of the halls of this plant did not yet have a roof by this date. In November 1949, SK2/2 had a total crew of about 4,000. Appendix C shows a sketch of SK2/2. The numbers in parentheses refer to numbers in Appendix C. (See page 9.)
- (1) Entrance into the plant coming from SK2/1.
  - (2) Tsekh No. 25A, a building about 22 meters long, 15 meters wide, and 9 meters high. It was supported by foundations and pillars of reinforced concrete and had a heavy roof much the same as Tsekh No. 4 of SK2/1. This building contained six large vacuum pumps and a crane with a 7.5 ton load capacity.
  - (3) Brick building made from 30 cm. long bricks, with the approximate dimensions of about 30 meters long, 18 meters wide, and 7 meters high. The roof was of light construction and was supported by T-beams of normal profile 20. This building served for the storage of Devinil. The Devinil was stored in light cisterns buried in sand underneath the ground level of the building. Each cistern had a capacity of 100 cubic

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meters and weighed 30 tons when empty. A pump system led from every cistern to the inside of the building above ground.

- (4) Tsekh No. 25, in which the polymerization process took place. The building was about 220 meters long, 150 meters wide, and 50 meters high. It was of steel and reinforced concrete construction, supported by foundations of reinforced concrete which were placed at distances of 5 and 7 meters. These foundations supported the steel construction. The roof was of steel construction, filled in with pressed plates from a mixture of cement and excelsior, sand and bitumen, as the roof of Tsekh No. 4 of SK2/1. The building consisted of a central aisle and two side aisles of unequal height; the highest side aisle was 66 meters high. The central aisle had two stories separated from each other by a ceiling made of reinforced concrete with a load capacity of 2,000 kg. per square meter. In late 1949, this building was under the supervision of Engineer Kryloveskiy (fnu). The central aisle contained four rows of 15 polymerizers of 10 cubic meters each. The highest side aisle housed four deflegmators (Deflegmatoren) with four condensers. There was also a crane with a 25-ton load capacity in this aisle. The other side aisle served for Devinil processing. Four additional cranes with 20-ton load capacities were in the central aisle.
  - (5) A building about 220 meters long, 150 meters wide, and 40 meters high. Its structure was the same as that of Tsekh No. 25. It contained four automatic drying ovens, each about 30 meters long and 14 meters high. This building housed the process for making buna from the polymerized material.
  - (6) Tsekh No. 10A, which is mainly a double row of 10 vertical cisterns, each with a diameter of 3 meters and a height of 8 meters. This point was the starting point of Buna production. The base material which was imported from East Germany (Buna/Schkopau) was first filled into these cisterns.
  - (7) A building, about 70 meters long, 40 meters wide, and 22 meters high, of the same construction as Tsekh No. 4 of SK2/1. It housed six contact ovens and six condensers. In late 1949, it was under the supervision of Syrota (fnu).
  - (8) Tsekh No. 22A, housing 10 cisterns placed in two parallel rows of five each, of the same kind as in Tsekh No. 10A. This tsekh also had a number of pumps, serving to mix the liquid within the cisterns.
  - (9) Tsekh No. 16, serving the rectification and distillation processes. Structure of foundations, pillars, walls, and roof were similar to the structure of Tsekh No. 4 of SK2/1. The building was about 70 meters long, 40 meters wide, and 40 meters high. It housed nine rectification columns. The highest rectification column was 32 meters high and had a weight of 36 tons when empty.
  - (10) A building which housed the plant mess and kitchen.
  - (11) Plant rail connection to the main rail line.
  - (12) Main rail line leading to Pridacha station (see also Appendix A).
  - (13) Plant exit leading to a large sawmill and then to the residential blocks (see Appendix A).
  - (14) Large watchtower manned by four guards. This tower is located on the highest point of the immediate territory.
5. SK2/2 was surrounded by a fence of the same kind as the one surrounding SK2/1. The protective measures were also similar to those of SK2/1. The entire SK2 compound was guarded by militia, which were police units under the Ministry of Internal Affairs. The entire compound was protected by high watchtowers, spaced

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about 100 meters from each other. Watchdogs (mentioned in paragraph 3, No. 10) for the protection of SK2/1 were also used for SK2/2. The entire guard unit consisted of women, with the exception of a small number of male officers. Each worker had two passes, one authorizing him to enter the SK2 territory and the other needed to enter the individual tsekh or hall in which he worked. Each hall or tsekh was guarded by a person checking the passes. A great number of German and Hungarian PWs worked in the SK2 Plants in late 1949. The average wage of a worker working in the plant was between 300 and 500 rubles per month. At that time, a pair of good leather shoes was worth about 200 to 250 rubles. A recognized specialist at that time earned about 800 to 1,000 rubles per month.

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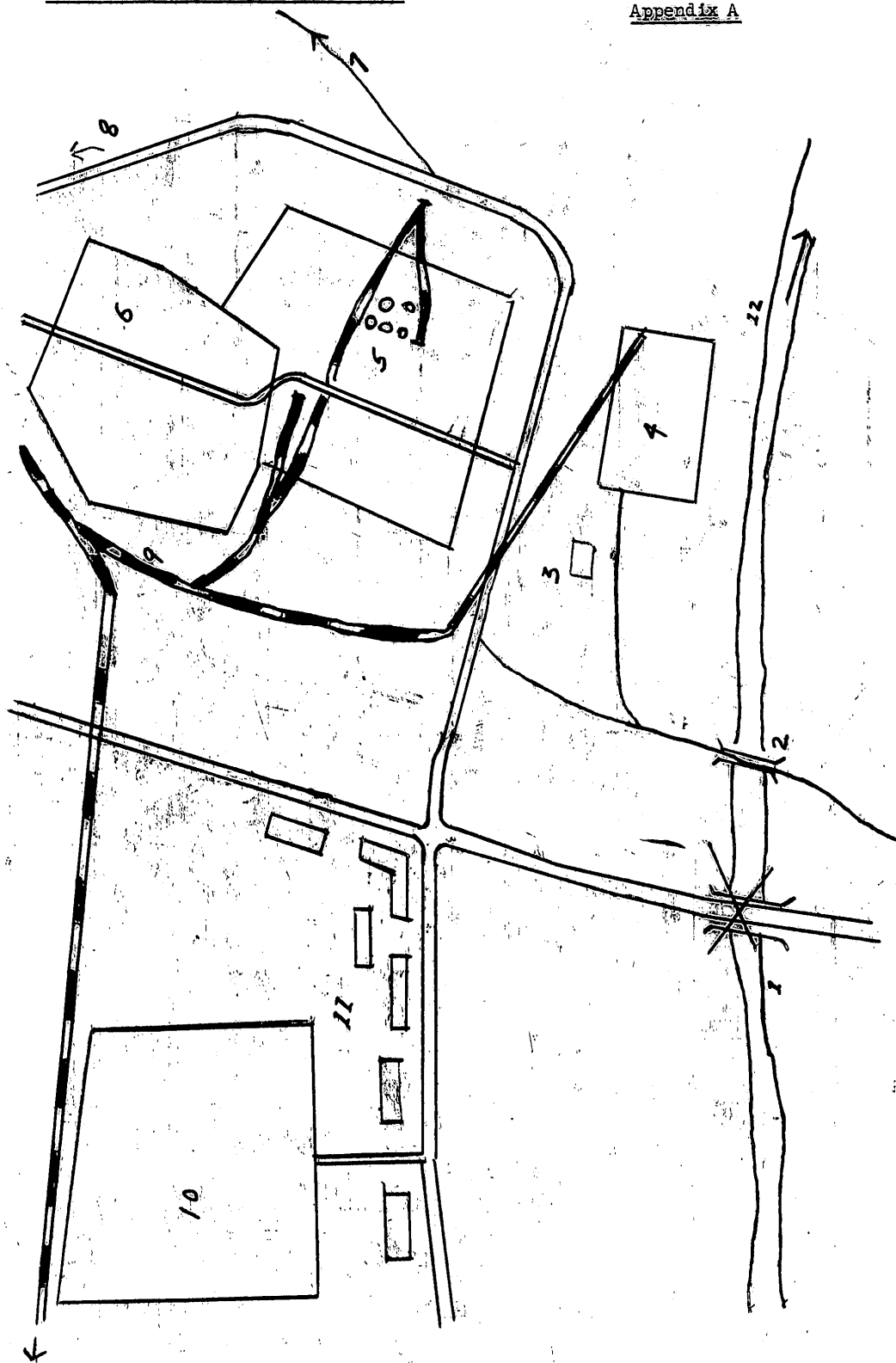
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The SK2 Compound and Surroundings

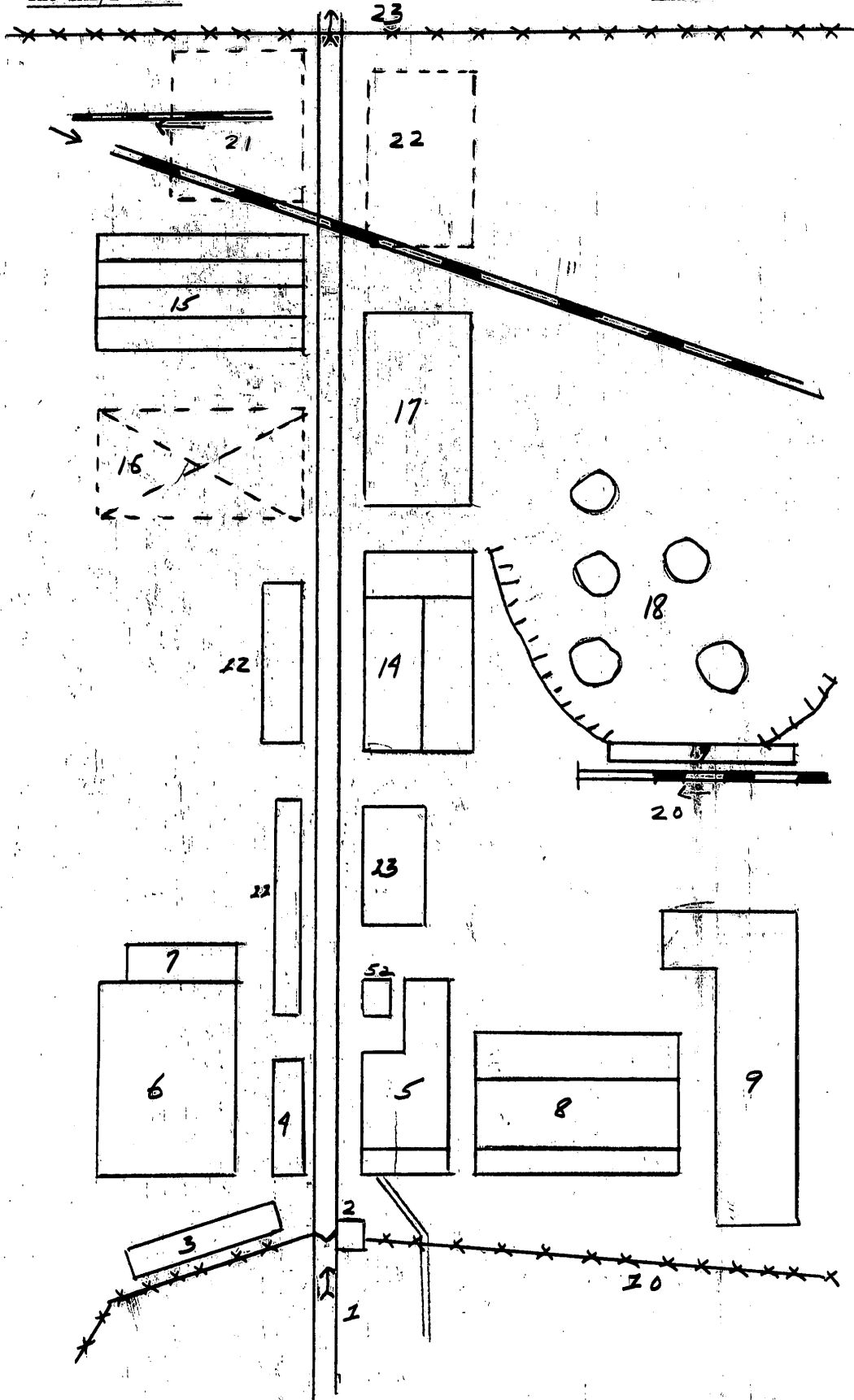
Appendix A



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The SK2/1 Plant



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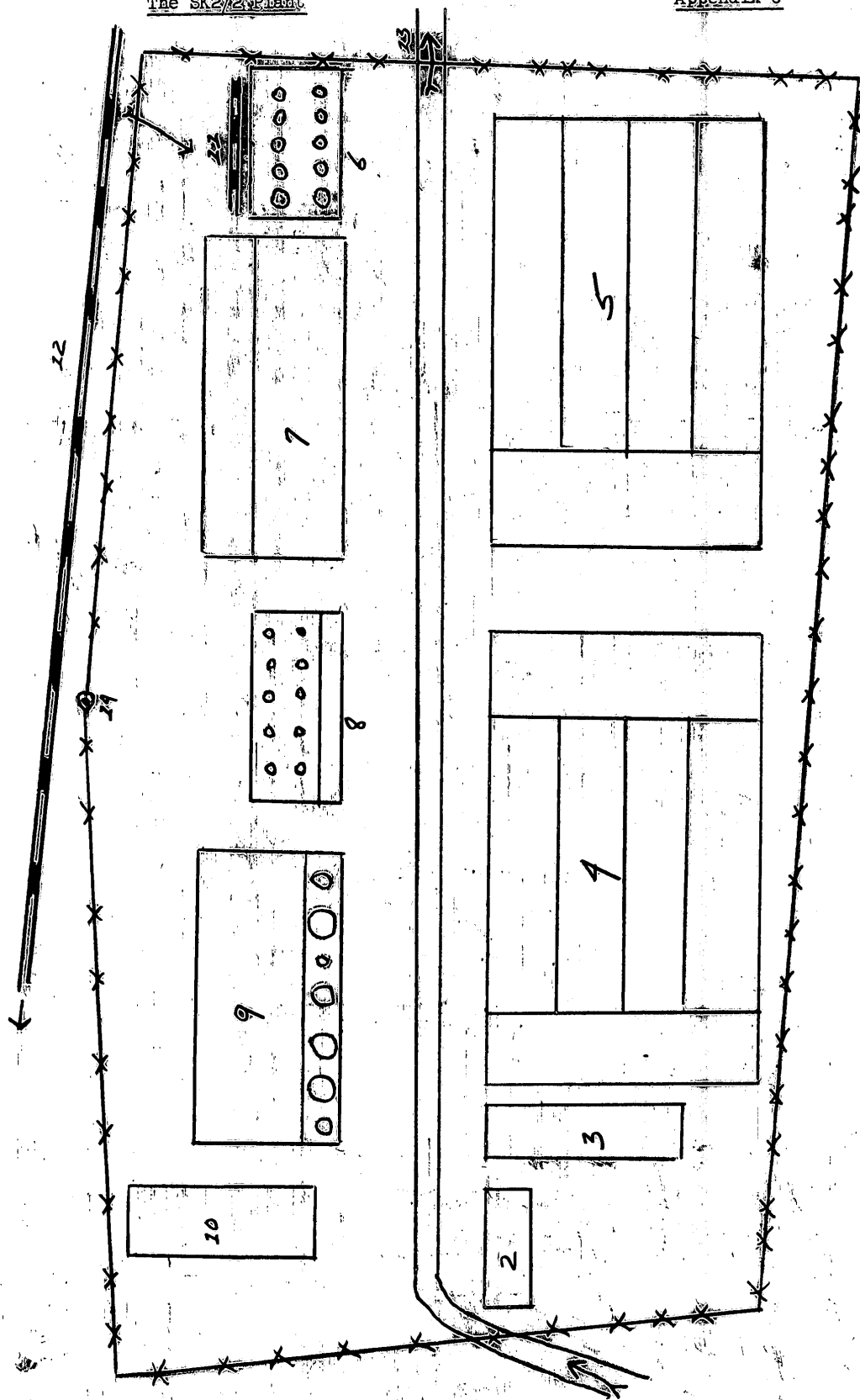
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The SK2/2 Plant

Appendix C



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